STATE OF MARYLAND
DHMH

Maryland Department of Health and Mental Hygiene
201 W. Preston Street • Baltimore, Maryland 21201
Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

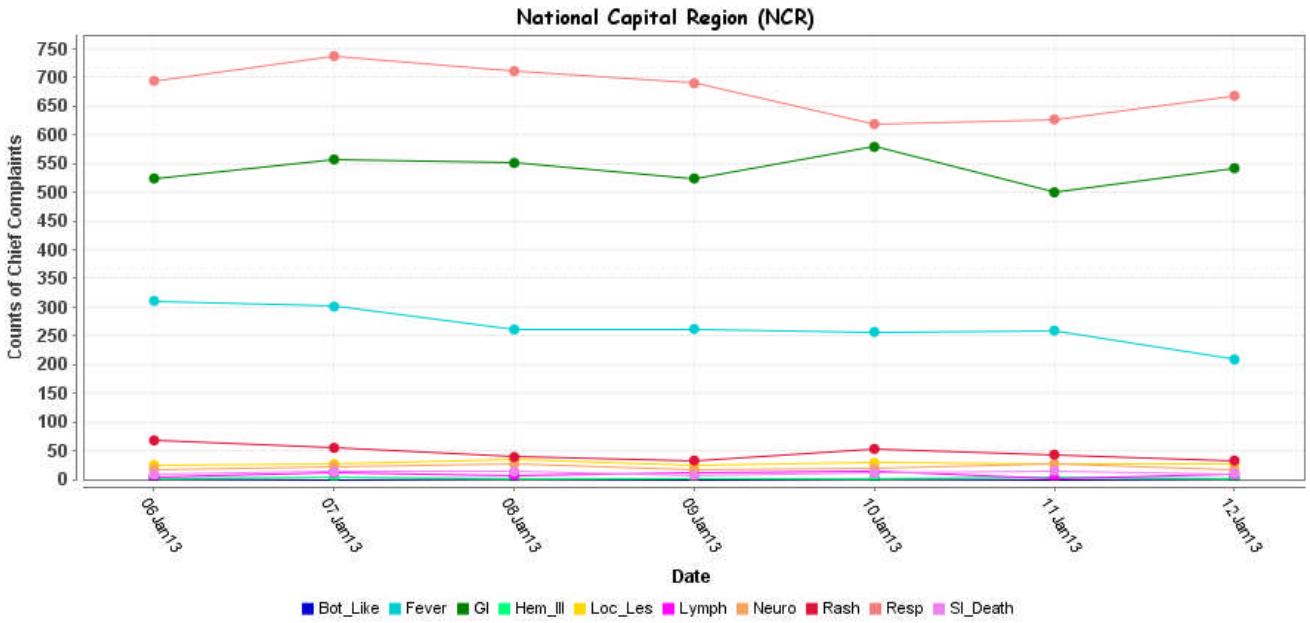
# January 18, 2013

# Public Health & Emergency Preparedness Bulletin: # 2013:02
# Reporting for the week ending 01/12/13 (MMWR Week #02)

**CURRENT HOMELAND SECURITY THREAT LEVELS**

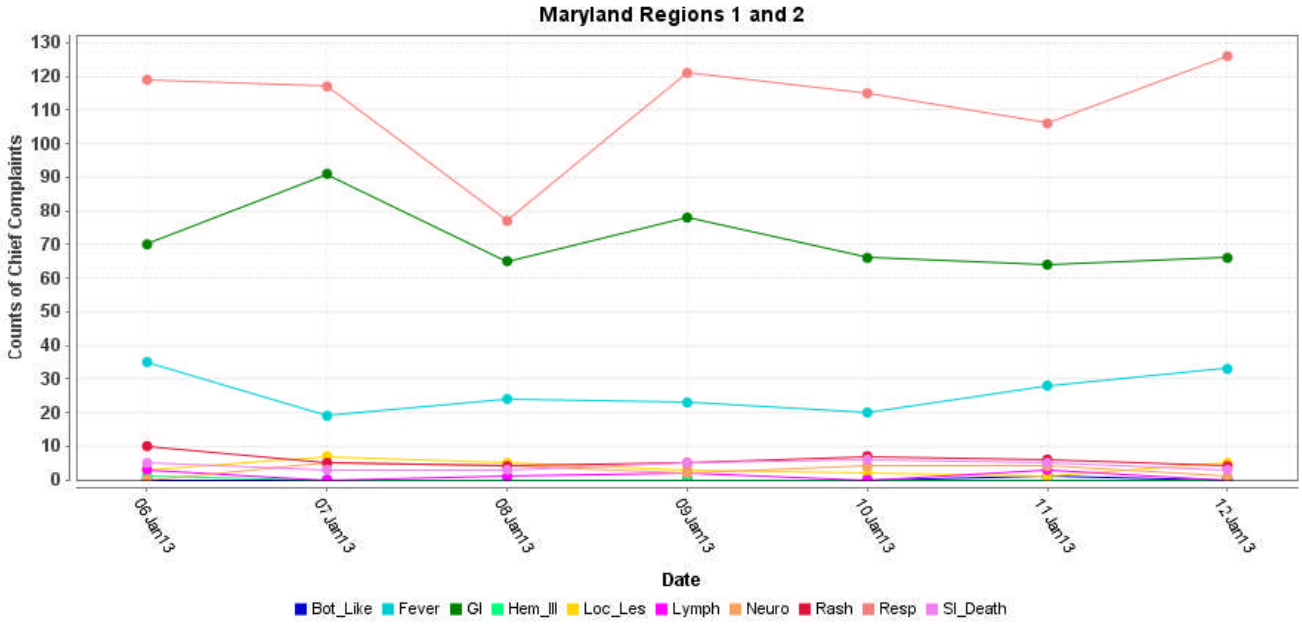
**National:** **No Active Alerts**
**Maryland:** **Level One (MEMA status)**

**SYNDROMIC SURVEILLANCE REPORTS**
**ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):**
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

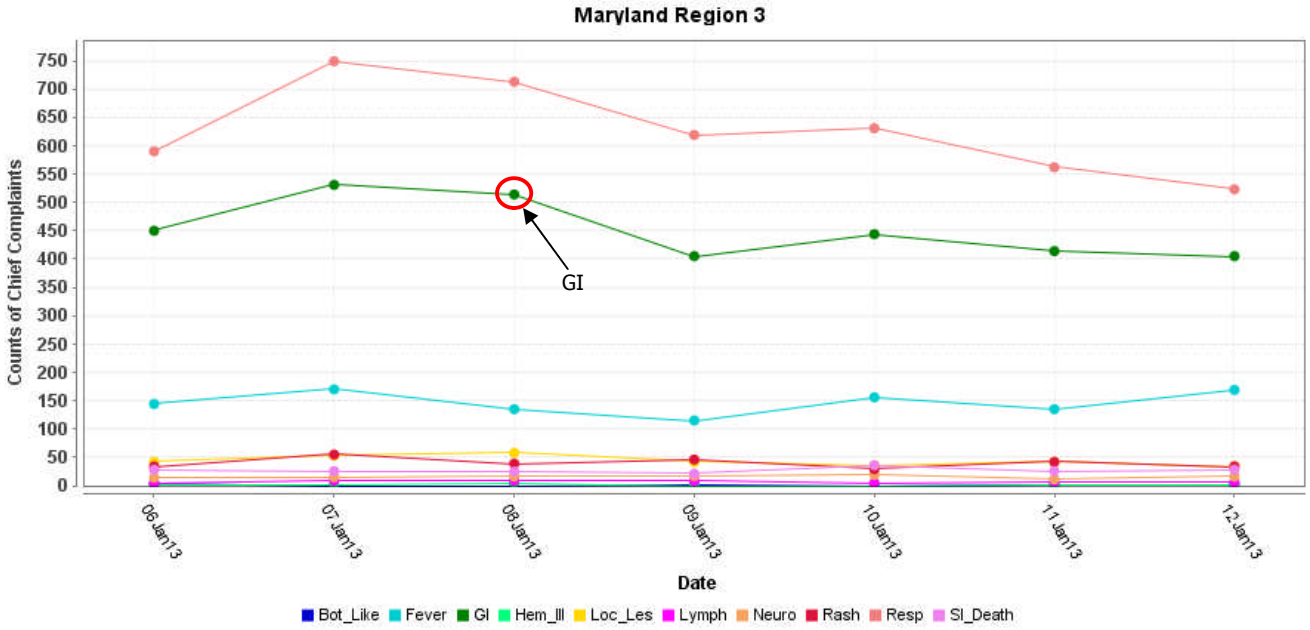



*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

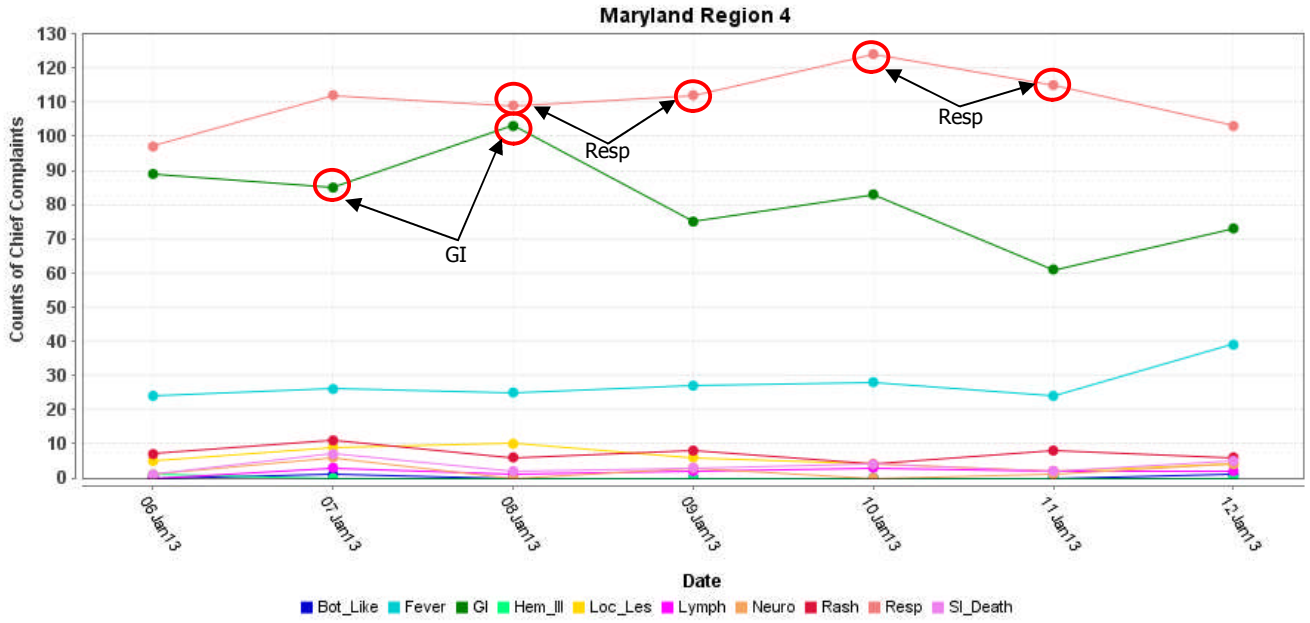
**MARYLAND ESSENCE:**



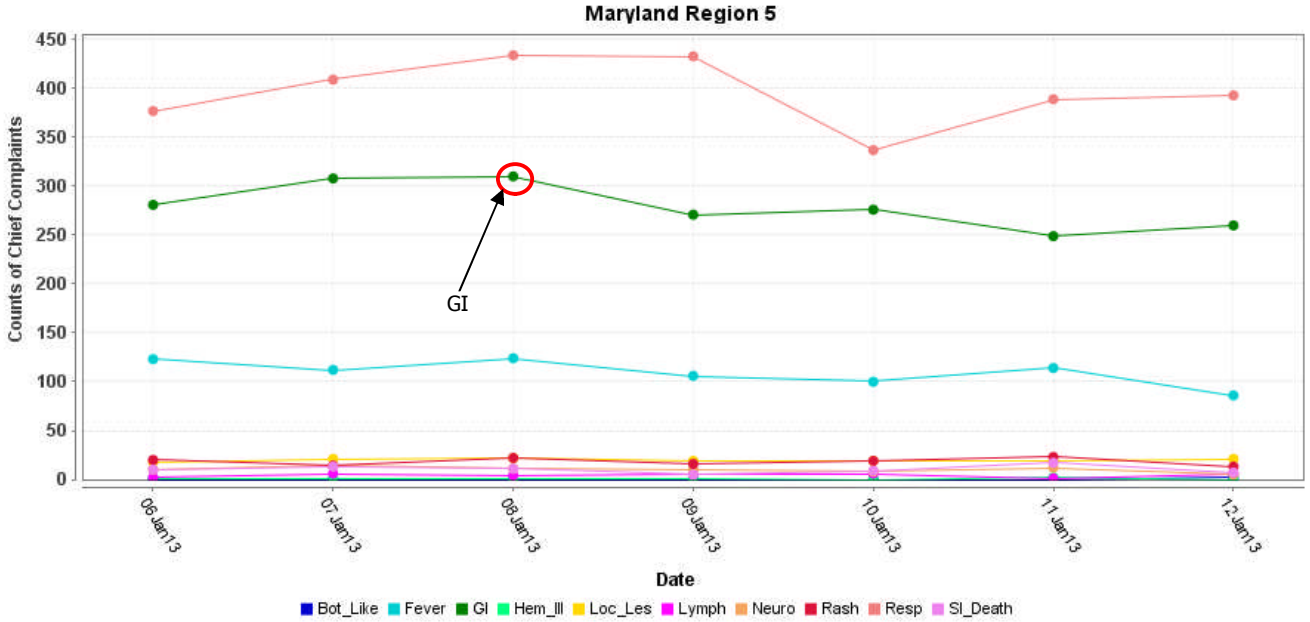

* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE




* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



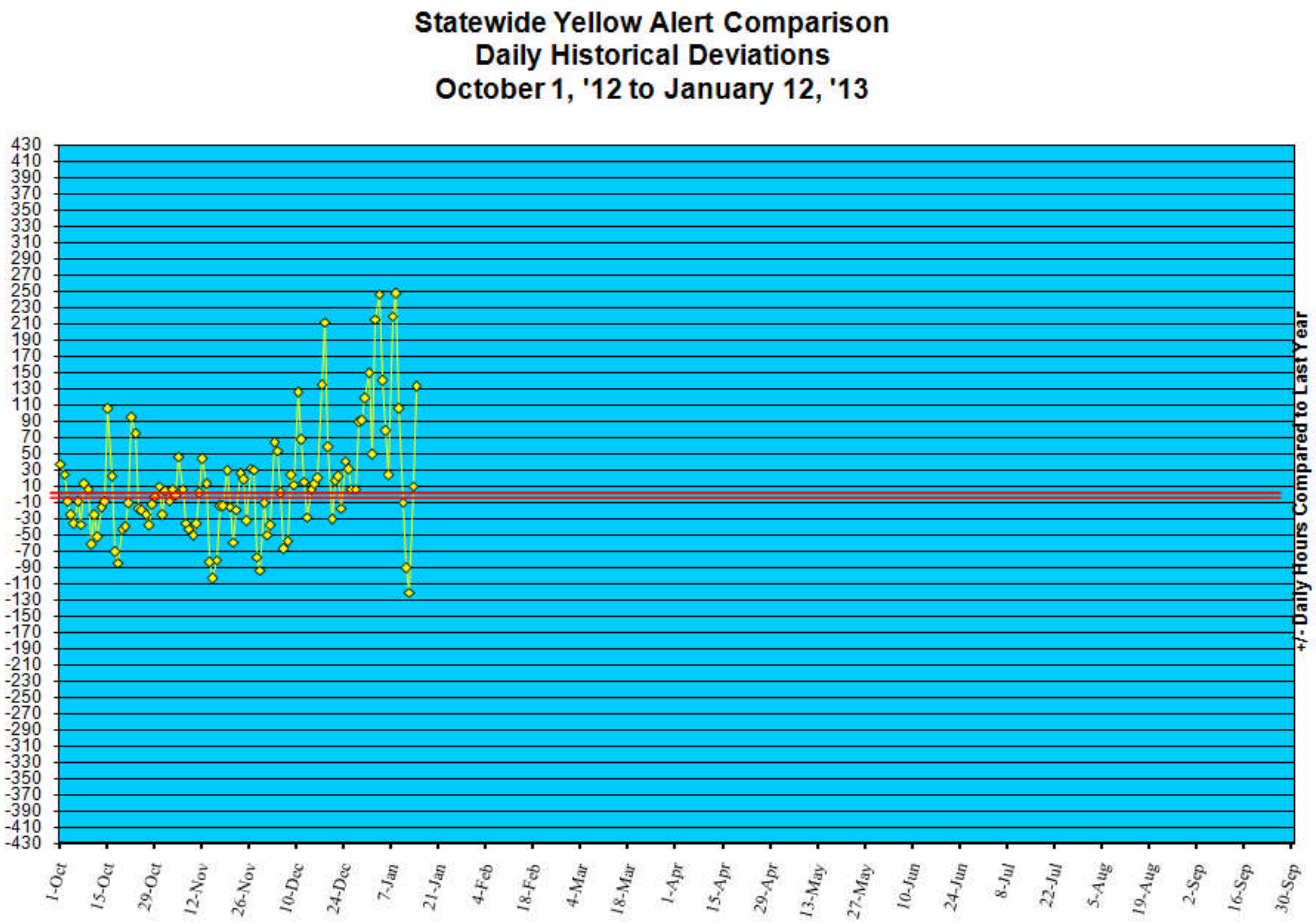

* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE




* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

**REVIEW OF EMERGENCY DEPARTMENT UTILIZATION**

**YELLOW ALERT TIMES (ED DIVERSION):** The reporting period begins 10/01/11.




**REVIEW OF MORTALITY REPORTS**

**Office of the Chief Medical Examiner:** OCME reports no suspicious deaths related to an emerging public health threat for the week.

**MARYLAND TOXIDROMIC SURVEILLANCE**

**Poison Control Surveillance Monthly Update:** Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in December 2012 did not identify any cases of possible public health threats.

**REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS**

**COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):**

| **Meningitis:** | **Aseptic** | **Meningococcal** |
|---|---|---|
| New cases (January 6 –January 12, 2013): | 7 | 0 |
| Prior week (December 30 – January 5, 2012): | 9 | 0 |
| Week#2, 2012 (January 8 – January 14, 2012): | 21 | 0 |

**42 outbreaks were reported to DHMH during MMWR Week 2 (January 6-12, 2013)**

8 Gastroenteritis Outbreaks
5 outbreaks of GASTROENTERITIS in Nursing Homes
1 outbreak of GASTROENTERITIS in a Hospital
1 outbreak of GASTROENTERITIS in a School
1 outbreak of GASTROENTERITIS in an Adult Day Program

33 Respiratory illness outbreaks
15 outbreaks of INFLUENZA in Nursing Homes
3 outbreaks of INFLUENZA in Assisted Living Facilities
2 outbreaks of INFLUENZA/PNEUMONIA in Nursing Homes
2 outbreaks of INFLUENZA/PNEUMONIA in Assisted Living Facilities
6 outbreaks of ILI in Nursing Homes
1 outbreak of ILI/PNEUMONIA in a Nursing Home
2 outbreaks of PNEUMONIA in Nursing Homes
2 outbreak of PNEUMONIA in Assisted Living Facilities

1 Rash illness outbreak
1 outbreak of SCARLET FEVER and STREPTOCOCCAL PHARYNGITIS associated with a School

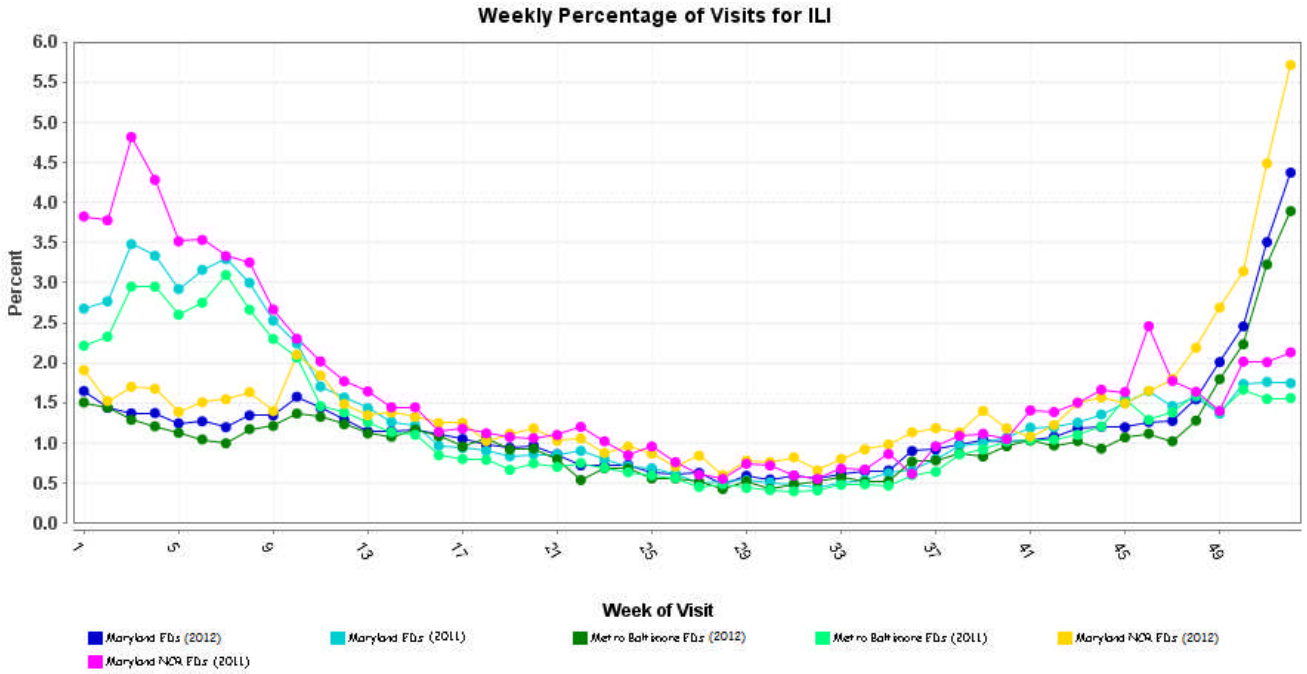
## MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 2 was: Widespread Activity with High Intensity.

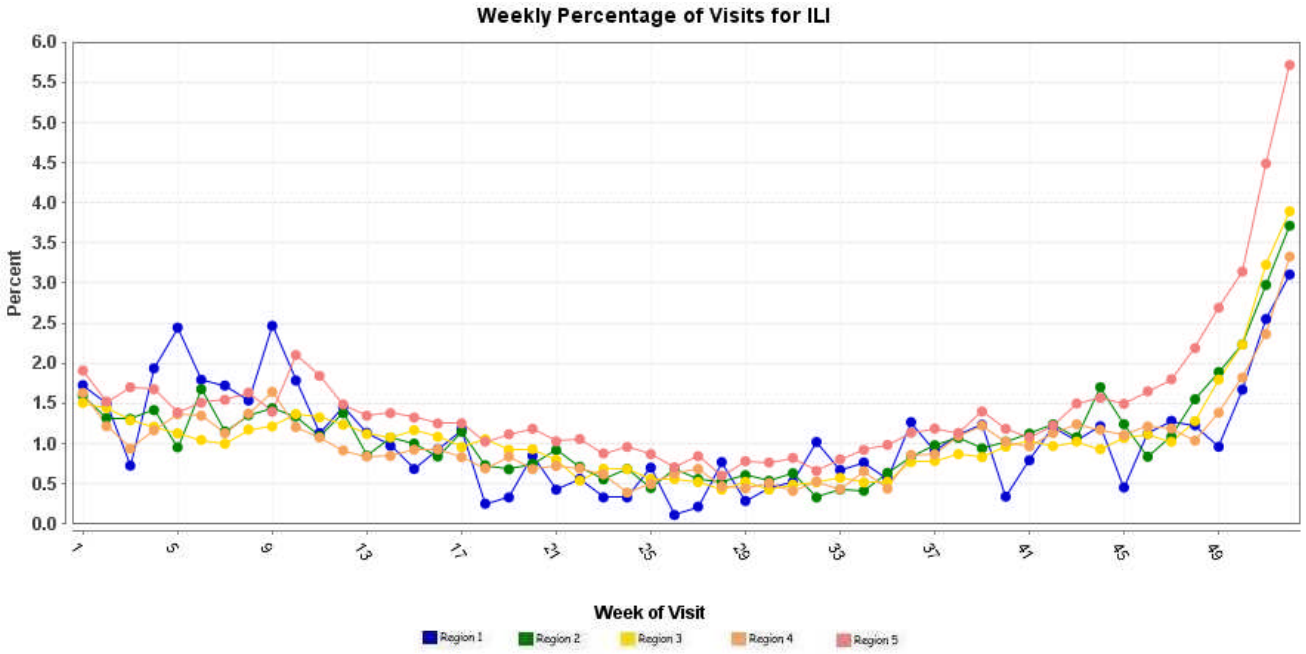
## SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



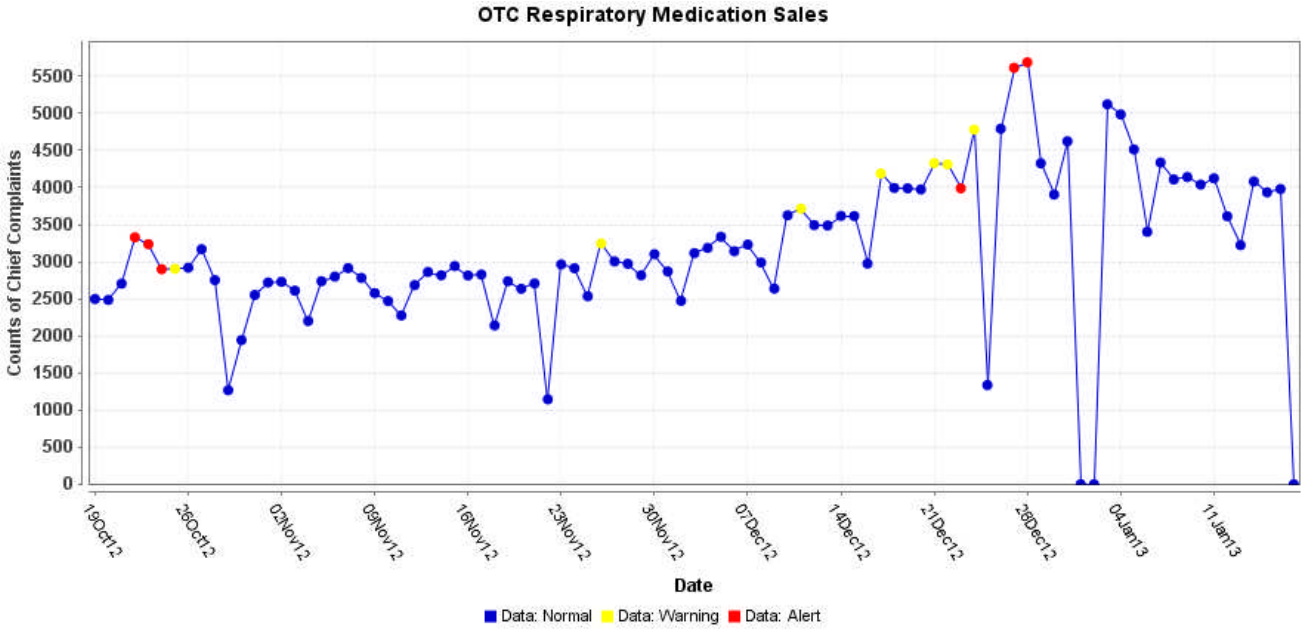

* Includes 2011 and 2012 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total




*Includes 2012 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

**OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:**

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



**PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS**

**WHO update:** The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic. As of December 17, 2012, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 610, of which 360 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

**NATIONAL DISEASE REPORTS***

**E. COLI EHEC (MISSOURI):** 11 January 2013, The Missouri Department of Health and Senior Services (DHSS) has become aware of several cases of diarrheal illness from northwest Missouri, possibly caused by Shiga-toxin producing *Escherichia coli*, including one confirmed as *E. coli O103*. These may be related to the consumption of locally-produced, raw (unpasteurized) dairy products. DHSS recommends that any person who has signs or symptoms of EHEC infection seek medical care. Health care providers should evaluate patients adequately to determine if testing for EHEC infection is warranted. Symptoms include severe stomach cramps, diarrhea (which is often bloody), and vomiting. If there is fever, it usually is not very high. Most patients' symptoms improve within 5-7 days, but some patients go on to develop hemolytic uremic syndrome (HUS), usually about a week after the diarrhea starts. The classic triad of findings in HUS are acute renal damage, microangiopathic hemolytic anemia, and thrombocytopenia. Use of antibiotics in patients with suspected EHEC infections is not recommended until complete diagnostic testing can be performed and EHEC infection is ruled out. Some studies have shown that administering antibiotics in patients with EHEC infections might increase their risk of developing HUS. However, clinical decision making must be tailored to each individual patient. There may be indications for antibiotics in patients with severe intestinal inflammation if perforation is of concern. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

**BRUCELLOSIS (NEW YORK):** 11 January 2013, A 66-year-old veteran was admitted to our facility related to 4 weeks of fever, drenching night sweats, and a 10-pound weight loss. He was a Viet Nam veteran who was born in Ecuador, moving to the USA 40 years before. His last trip back to Ecuador was 5 years previously but does get periodic visits from relatives still living there. Initial blood cultures grew a bacillus identified as a *Brucella*, and he subsequently had 5 positive blood cultures for the organism over 4 days. Speciation of the organism was done at the New York State Department of Health and revealed to be *B. abortus*. Although he initially denied eating cheese brought from Ecuador, his daughter reported that the family had eaten cheese brought from Ecuador several times in 2012, the last time within a month of the onset of symptoms. Brucella agglutinins were subsequently positive. A transesophageal echocardiogram did not reveal valvular vegetations. He became afebrile promptly after treatment was begun with rifampin and doxycycline. All follow up blood cultures were negative. No other illnesses or serological evidence of brucellosis were found in other family members. Laboratory workers who had handled the isolate were given antimicrobial prophylaxis and are to have serological follow ups. (Brucellosis is listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

**INTERNATIONAL DISEASE REPORTS***

**E. COLI EHEC (CANADA):** 12 January 2013, The source of a potentially deadly strain of *E. coli O157* in Nova Scotia, New Brunswick and Ontario was likely lettuce served at KFC/Taco Bell outlets, health officials say. All suspect lettuce has been recalled, they said Friday afternoon, 11 Jan 2013. "The evidence from our collaborative investigation leads us to believe that the common food source was distributed to this fast-food restaurant chain," said Dr. Frank Atherton, Nova Scotia's deputy chief medical officer of health. "Lettuce has a limited shelf life, and we have not seen a new case in more than a week. This tells us it is highly unlikely the food item remains in the food chain. As an added precaution, the Canadian Food Inspection Agency is issuing a recall of the lettuce products." He added that the fault did not lie with the restaurants, but with FreshPoint, the company that supplied the lettuce. No new cases of *E. coli O157* are expected, officials said. Nova Scotia has had 10 confirmed cases of *E. coli O157* in the past couple of weeks. At least 5 are linked to the outbreak. New Brunswick has also had 6 confirmed cases, while Ontario has had 5. All of the patients have been treated and are recovering, Atherton said. Dr. Eilish Cleary, New Brunswick's chief medical officer, said it was hard to pin down the particular outlet. The lettuce was distributed to other fast-food chains, but the cases were all linked to Taco Bell/KFC. "When we looked at the food history of our patients, they had eaten at several locations, so we were unable to pinpoint exactly which ones they were exposed at," she said. Sabir Sami, president of KFC/Taco Bell parent company Yum Restaurants, said his company takes the developments seriously. "We're obviously concerned, as this lettuce provided to us by FreshPoint has been distributed to many area restaurants in Canada, including ours," he said in a news release. "We have removed all the affected lettuce from our restaurants in Canada and want to reassure our customers that our food is perfectly safe to eat. The health and safety of our customers is our top priority." (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

**ANTHRAX (ZIMBABWE):** 11 January 2013, A total of 16 more people in Rusape are at the risk of contracting anthrax after consuming infected meat following the outbreak of the hemorrhagic infection in the Masvosva area. So far 20 cases have been confirmed and 16 others are said to be at risk of the infection according to records at Rusape General Hospital -- bringing nearly to 40 the number of people likely to be affected by the consumption of meat infected by the killer disease. Outgoing Rusape District Medical Superintendent, Dr Mohammed Khaled, confirmed the findings, but said the situation was under control. "According to the report we got, 16 more people are at risk because they are suspected to have eaten the same meat. The area is still under surveillance because more people could be at risk. To date, 20 cases have been confirmed, and investigations point out that another 16 others are at risk," he said. Humans usually get anthrax through direct contact with infected livestock, often when spores get into a cut on the skin or eating infected meat. Without treatment, anthrax can be fatal, but early treatment with antibiotics is very effective. Anthrax has killed hundreds of animals mostly in

Masvosva, a situation that was worsened by ignorant farmers who concealed information about their animal's deaths to veterinary authorities fearing arrest. The veterinary authorities in the district only picked the information about the anthrax outbreak following its detection in patients at Masvosva Clinic. It is understood, however, that cattle in the area started dying as early as October [2012], but farmers were not reporting the sporadic deaths for timely vaccine interventions. The veterinary authorities have since moved to vaccinate the cattle in Masvosva, Dewedzo and other surrounding areas and embargoed the movement of cattle from these areas to avert the spread of the disease to other areas. Makoni District veterinary officer, Dr Kupahwana, urged farmers to cooperate with his officers on the ground, adding that animal sickness was not an offence. Dr Kupahwana dissuaded farmers from slaughtering sick animals, adding that dead ones must be properly buried to avoid the spread of the disease. Recently anthrax cases were documented in Buhera, Mutare, Mutasa and Chipinge districts. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

**YELLOW FEVER (SUDAN):** 10 January 2013, A "Situation Report" on the yellow fever outbreak in Darfur jointly released by the Sudanese federal Ministry of Health and by the World Health Organisation (WHO) asserted that 171 people have died of the disease in the region as of 9 Jan [2013]. The report also indicated that 849 suspected cases of yellow fever have been reported in Darfur since 2 Sep 2012. Additionally, the case fatality rate (CFR) of the disease is suspected to be 20.1 per cent. Information suggests that 35 out of the 64 localities of Darfur have been affected by the disease. Central Darfur is reportedly still the most affected state with 51.5 per cent of the registered cases. It is followed by North Darfur (21 per cent), West Darfur (17.4 per cent) and South Darfur (9.5 per cent). East Darfur is not mentioned in this calculation, being allegedly the least affected state with 0.6 per cent of the diagnosed cases based on the percentage provided above. So far, 1.1 million people have been vaccinated against yellow fever in Darfur. The 2nd phase of the campaign covered 95 per cent of South Darfur's targeted population, 87 per cent of West Darfur, and 86 per cent of Central Darfur, the joint statement announced. For the campaign's 3rd phase, the WHO recommends the inclusion of 2 million people residing in the following areas: Kabkabiya, Edd Elfursan (including Kabum locality), Elwihda, Shaeriya (including Yassin locality), El-Daen, Rokiro and Umm Dukhun. "The 1st vaccine shipment of 670 400 doses is scheduled to arrive in Sudan on 14 Jan [2013], while the 2nd shipment of 702 000 doses and 3rd shipment of 827 600 doses will be delivered shortly afterwards." A total of 1754 blood samples were collected from different zones of Sudan and sent to a virologist from Institute Pasteur in Dakar, Senegal to analyze the material. He is reportedly working at the National Public Health Laboratory in Khartoum. (Yellow Fever is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

*National and International Disease Reports are retrieved from http://www.promedmail.org/.

**OTHER RESOURCES AND ARTICLES OF INTEREST**

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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**NOTE**: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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**Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents**

## Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

| Syndrome | Definition | Category A Condition |
|---|---|---|
| Botulism-like | ACUTE condition that may represent exposure to botulinum toxin<br>ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy.<br>ACUTE descending motor paralysis (including muscles of respiration)<br>ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point. | Botulism |
| Hemorrhagic Illness | SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola<br>ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF<br>ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria | VHF |
| Lymphadenitis | ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck) | Plague (Bubonic) |
| Localized Cutaneous Lesion | SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia<br>ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia<br>INCLUDES insect bites<br>EXCLUDES any lesion disseminated over the body or generalized rash<br>EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease | Anthrax (cutaneous)<br>Tularemia |
| Gastrointestinal | ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract<br>SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis<br>ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea<br>EXCLUDES any chronic conditions such as inflammatory bowel syndrome | Anthrax (gastrointestinal) |

**Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents**
(continued from previous page)

| Syndrome | Definition | Category A Condition |
|---|---|---|
| Respiratory | ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media)<br>SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus<br>ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis<br>ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain<br>EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE *acute exacerbation* of chronic illnesses.) | Anthrax (inhalational)<br>Tularemia<br>Plague (pneumonic) |
| Neurological | ACUTE neurological infection of the central nervous system (CNS)<br>SPECIFIC diagnosis of acute CNS infection such as pneumoccocal meningitis, viral encephailitis<br>ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephailitis NOS, encephalopathy NOS<br>ACUTE non-specific symptoms of CNS infection such as meningismus, delerium<br>EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's | Not applicable |
| Rash | ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs)<br>SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox<br>ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem<br>EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheaic dermatitis, rosacea<br>EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema | Smallpox |
| Specific Infection | ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal)<br>INCLUDES septicemia from known bacteria<br>INCLUDES other febrile illnesses such as scarlet fever | Not applicable |

**Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents** (continued from previous page)

| Syndrome | Definition | Category A Condition |
|---|---|---|
| Fever | ACUTE potentially febrile illness of origin not specified<br>INCLUDES fever and septicemia not otherwise specified<br>INCLUDES unspecified viral illness even though unknown if fever is present<br>EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome | Not applicable |
| Severe Illness or Death potentially due to infectious disease | ACUTE onset of shock or coma from potentially infectious causes<br>EXCLUDES shock from trauma<br>INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births<br>EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths | Not applicable |